commenced and was nearly completed....by the use of strychnine baits laid for dingoes, wild dogs, wedge-tailed eagles, and crows, for it attracted and killed out most of our numerous useful small eagles and hawks" (p. 22).

The authors go on to say: "The carrion and carnivorous birds were so numerous less than forty years ago that very little carrion about the home station or sheep paddocks remained long enough to decay or to feed maggots. The inhabitants of the Southern United States and Mexico are wiser with their scavenger birds. They protect the turkey buzzard or vulture which is semi-domesticated in their towns, and so numerous that even a dead horse or bullock is stripped to the bone before it has been dead twenty-four hours" (p. 22). Whatever the merits of this encomium it now comes rather as coals of fire for the Southern States mostly have reversed their policy respecting the buzzard chiefly on account of a conjectural relation of the bird to the spread of stock diseases.

Messrs. Froggatt are of the opinion that "the carrion-destroying birds had a very great deal to do with the reduction of the numbers of insects like blow-flies....far more than the true insectivorous birds." However, some of the latter are commended for feeding upon the sheep-maggot flies, among them the Noisy Minah (Myzantha garrula), the White-eared Honey-eater (Ptilotis penicillata) and the Willy Wagtail (Rhipidura tricolor). Two of these are additional to the four groups mentioned in the previous report. A further warning is sounded regarding the starling.—W. L. M.

Economic Ornithology in recent Entomological Publications.—In a report on white grubs which injure sugar cane in Porto Rico,² Mr. E. G. Smyth gives considerable credit to bird enemies of these pests. He refers to the results of stomach examination cited in Wetmore's 'Birds of Porto Rico' ³ and gives an account of some of his own field observation.

"The blackbird or "mosambique," Mr. Smyth says, "is placed as the most important bird enemy of white-grubs because of its great abundance in those parts of the Island where the white-grubs are most injurious, namely, in the arid coast districts. It is a very common sight to observe considerable flocks of these birds following the plows and picking up grubs when fields cleared of cane are being broken up.....At Santa Rita, near Guanica Centrale, during the winter plowing season, actual observation and count, it was shown that over 90 per cent of the grubs exposed to light by the plows are picked up by these birds, so that the employment of peons to follow the plows and pick grubs is quite unnecessary in that district. When it is considered that a bird is able to consume more than the equivalent of its own weight of food in twenty-four hours, and that blackbirds during the plowing season of five to six months subsist almost wholly

¹ See 'The Auk', 30, No. 2, April, 1913, pp. 295-8.

² Journ. Dept. Agr. Porto Rico, 1, No. 2, April, 1917, pp. 53-54.

³ Bull, 326, U. S. Dept. Agr. 1916, reissued as Bull, 15, Insular Exp. Sta., P. R. 1916.

upon grubs, one may appreciate the vast numbers of grubs that they consume."

The authors of a bulletin on 'Grasshoppers and their Control,' in South Dakota recognize the importance of the bird enemies of these pests. They say: "Practically all birds which feed in fields infested with grasshoppers, include these insects in their bill of fare, but the following are the most useful in this respect: prairie chickens, quails or bob whites, meadow larks, Franklin gulls, all species of plovers, sparrow hawks, marsh hawks, red-winged blackbirds, yellow-headed blackbirds, purple grackles, crows, screech owls, burrowing owls, robins and several kinds of sparrows. Chickens and turkeys when present in sufficient numbers, also aid in checking an outbreak of hoppers." — W. L. M.

Report of the Biological Division of the Canadian Geological Survey for 1916.²— Besides the report on museum accessions and activities there are to be found in this volume an account of a reconnaissance in Barkley Sound, on the West Coast of Vancouver Island, by Clyde L. Patch, with an annotated list of the birds obtained — 37 species — by P. A. Taverner. Mr. Taverner also has a list of 103 species obtained at Brackendale, Lillooet and McGillivray Creek, B. C., by C. H. Young and W. Spreadborough, and another account of a collection of 33 species made by C. H. Young, at Douglas, Manitoba. In the same report Dr. R. M. Anderson has an account of the work of the Canadian Arctic Expedition of 1914–1916, with an annotated list covering 61 species of birds. All these lists are termed "preliminary." — W. S.

The Ornithological Journals.

Bird-Lore. XIX, No. 4. July-August, 1917.

Children of the Midnight Sun. By Joseph Dixon.—An illustrated account of the breeding habits of the Semipalmated Sandpiper on the Arctic coast of Alaska.

The Giant Bird Diatryma. By Walter Granger.

The Schuylkill Heronries. By Frank L. Burns.—An historical account of the Night Heron rookeries north of Philadelphia and the constant persecution and wanton destruction which has almost exterminated them.

The Educational Leaflet treats of the Phœbe, with a colored plate by Sawyer.

The Condor. XIX, No. 3. May-June, 1917.

The Home Life of the Baird Sandpiper. By Joseph Dixon.—Another study on the Arctic coast of Alaska, with illustrations.

¹ Bull. 172, S. D. Agr. Exp. Sta., February, 1917, p. 565.

²Summary Report of the Geological Survey, Department of Mines for the Calendar Year 1916, Ottawa, 1917. pp. 337-386.